

AMENDMENTS TO THE CLAIMS

Please replace the pending claims with the following claim listing:

1. **(Currently Amended)** An enclosure for carrying out an operation under sterile conditions, the enclosure comprising:

a main chamber;

a first apparatus disposed within the main chamber for generating and delivering a sterilant vapour from a supply held within the main chamber to be distributed throughout the main chamber to sterilise the surfaces of the main chamber;

a plenum chamber;

a filter separating the plenum chamber from the main chamber;

a pump for the plenum chamber for delivering air into the plenum chamber and then through the filter to the main chamber to create a filtered flow of air through the main chamber; and

means for drawing gas from the enclosure via an outlet from the plenum chamber to create a flow of sterilant vapour from the main chamber through the filter to decontaminate the filter and through the plenum chamber to the outlet to sterilise the plenum chamber before exiting the outlet and to maintain pressure in the main and plenum chambers below atmospheric so that any leak paths result in leakage from the atmosphere into the chambers and do not result in release of sterilant vapour to the atmosphere around the enclosure;

wherein the flow of air into the main chamber and the flow of sterilant vapour out of the main chamber pass through the same filter;

~~wherein the means for drawing gas from the enclosure comprises a fan located in a conduit connected to the outlet to create a flow of sterilant vapour from the main chamber through the filter to decontaminate the filter and then through the plenum chamber to decontaminate the plenum chamber before then exiting the outlet; and~~

wherein the conduit has means for rendering sterilant flowing through the conduit ineffective to avoid release of sterilant to atmosphere.

2. **(Canceled)**

3. **(Previously Presented)** An enclosure as claimed in claim 1, wherein the means for rendering the sterilant ineffective is located upstream of the fan in relation to the enclosure.

4. **(Previously Presented)** An apparatus as claimed in claim 3, wherein the means for rendering the sterilant ineffective comprises a catalytic converter for breaking the sterilant down into harmless biproducts which can be exhausted to atmosphere.

5. **(Previously Presented)** An enclosure as claimed in claim 3, wherein the conduit has selectively operable valve controlled outlets of larger and smaller capacities, the smaller capacity outlet being open during said period when the enclosure is to be maintained at a predetermined reduced pressure and the larger valve controlled outlet being opened during discharge of the sterilant atmosphere from the enclosure.

6. **(Canceled)**

7. **(Previously Presented)** An enclosure as claimed in claim 6, wherein a filter is provided in the outlet from the plenum chamber.

8. **(Previously Presented)** An enclosure as claimed in claim 1, further comprising a second apparatus for rendering sterilant in the atmosphere in the main chamber ineffective after the sterilisation of the main chamber, the second apparatus being disposed within the main chamber.

9. **(Previously Presented)** An enclosure as claimed in claim 8, wherein the second apparatus comprises:

a housing containing a catalytic converter for converting the sterilant into harmless biproducts for disposal; and

means for circulating the atmosphere of the main chamber through the housing to reduce the sterilant concentration in the atmosphere when the sterilisation operation has been performed.

10. **(Previously Presented)** An enclosure as claimed in claim 1, wherein the outlet from the plenum chamber contains an exhaust filter through which air/sterilant vapour is drawn from the chamber.

11. **(Previously Presented)** An enclosure as claimed in claim 1, wherein the outlet from the plenum chamber contains two spaced filters through which sterilant vapour is drawn from the plenum chamber.

12. **(Previously Presented)** An enclosure as claimed in claim 4, wherein the conduit has selectively operable valve controlled outlets of larger and smaller capacities, the smaller capacity outlet being open during said period when the enclosure is to be maintained at a predetermined reduced pressure and the larger valve controlled outlet being opened during discharge of the sterilant atmosphere from the enclosure.

13. **(Previously Presented)** An enclosure as claimed in claim 6, wherein a filter is provided in the conduit connected to the outlet from the plenum chamber.

14. **(Previously Presented)** An enclosure as claimed in claim 1, wherein the filter separating the plenum chamber from the main chamber is a HEPA filter.

15. **(Previously Presented)** An enclosure as claimed in claim 1, wherein the filter separating the plenum chamber from the main chamber is an air filter.

16. **(Currently Amended)** An enclosure as claimed in claim 1, wherein ~~the main chamber is sealed closed except that~~ gas can travel in and out of the main chamber only through the filter separating the main chamber from the plenum chamber.

17. **(Currently Amended)** A system comprising:
an enclosure ~~including comprising~~:
a main chamber;
a plenum chamber; and
a filter separating the main chamber from the plenum chamber;
a first pump configured to pump one or more gases into the plenum chamber and then, via the filter, into the main chamber; and
a second pump configured to, while the first pump pumps the one or more gases into the plenum and main chambers:
maintain negative pressure in the main and plenum chambers by drawing one or more gases from the plenum chamber; and
cause sterilant vapor within the main chamber to flow from the main chamber into the plenum chamber via the filter and then flow out of the plenum chamber via an outlet of the plenum chamber by drawing one or more gases from the plenum chamber;
~~wherein the second pump is configured to maintain negative pressure in the main and plenum chambers by drawing one or more gases from the plenum chamber; and~~
~~wherein the second pump is configured to cause sterilant vapor within the main chamber to flow from the main chamber into the plenum chamber via the filter and then flow out of the plenum chamber via an outlet of the plenum chamber by drawing one or more gases from the plenum chamber.~~
wherein the flow of the one or more gases into the main chamber and the flow of sterilant vapour out of the main chamber pass through the same filter.

18. **(Previously Presented)** The system as in claim 17, further comprising:
a sterilant vapor generator disposed within the main chamber, the sterilant vapor generator being configured to generate the sterilant vapor and to supply the sterilant vapor to the main chamber.

19. **(Previously Presented)** The system as in claim 17, wherein the filter separating the main chamber from the plenum chamber is an air filter.

20. **(Previously Presented)** The system as in claim 17, wherein the filter separating the plenum chamber from the main chamber is a HEPA filter.

21. **(Currently Amended)** The system as in claim 17, wherein the main chamber is sealed closed except that gas can travel in and out of the main chamber only through the filter separating the main chamber from the plenum chamber.

22. **(Withdrawn – Currently Amended)** A method of using an enclosure, a first pump and a second pump, the enclosure including a main chamber, a plenum chamber and a filter separating the main chamber from the plenum chamber, the method comprising:

by the first pump, pumping one or more gases into the plenum chamber and then, via the filter, into the main chamber; and

by the second pump, maintaining, while the first pump pumps the one or more gases into the plenum and main chambers, negative pressure in the main and plenum chambers by drawing one or more gases from the plenum chamber; and

by the second pump, causing, while the first pump pumps the one or more gases into the plenum and main chambers, sterilant vapor within the main chamber to flow from the main chamber into the plenum chamber via the filter and then flow out of the plenum chamber via an outlet of the plenum chamber by drawing one or more gases from the plenum chamber;

~~wherein the second pump maintains the negative pressure in the main and plenum chambers by drawing one or more gases from the plenum chamber; and wherein the second pump causes the sterilant vapor within the main chamber to flow from the main chamber into the plenum chamber via the filter and then flow out of the plenum chamber via an outlet of the plenum chamber by drawing one or more gases from the plenum chamber;~~

wherein the flow of the one or more gases into the main chamber and the flow of sterilant vapour out of the main chamber pass through the same filter.